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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/774,577

02/09/2004

Jennifer A. Coggan

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12/11/2009

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EXAMINER

GARRETT, DAWN L

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/11/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/774,577	Applicant(s) COGGAN ET AL.	
	Examiner Dawn Garrett	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 8-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is responsive to the amendment received August 31, 2009. Claims 1, 8 and 14 were amended. Claims 1-16 are present.

2. The species under consideration in the last Office action is the following:

Formula I wherein only one of R2 or R3 is a heteroaromatic ring and the remaining groups on the binaphthyl core are hydrogen. This same species corresponds to Formula II wherein only one of R5 or R6 is a heteroaromatic ring and the remaining groups on the binaphthyl core are hydrogen.

Applicant has amended the claims such that the above previously considered species is no longer claimed. The amendment has necessitated the selection of a new species for consideration by the examiner. The new species under consideration is the following:

Formula I wherein R1 and R4 are hydrogen and R2 and R3 are aryl amino (the remaining positions of the binaphthyl core comprise hydrogen). Claims 1-7 and 14-16 read upon this species. Claims 8-13 are withdrawn as non-elected species with respect to the species currently under consideration.

3. The rejection of claims 1, 2, 5-9, 14 and 15 under 35 U.S.C. 102(b) as being anticipated by Kita et al. (EP 1013740 A2) is withdrawn due to the amendment.

4. The rejection of claims 1, 2, 5-9, 14, and 15 under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (JP 2002-175883) is withdrawn due to the amendment.

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5. The rejection of claim 16 under 35 U.S.C. 103(a) as being unpatentable over Kita et al. (EP 1013740 A2) in view of Suzurisato et al. (JP 2002-324676) is withdrawn due to the amendment.
6. The rejection of claims 3 and 4 under 35 U.S.C. 103(a) as being unpatentable over Kita et al. (EP 1013740 A2) in view of Hoag et al. (US 6,824,893) is withdrawn due to the amendment.
7. The rejection of claim 16 under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (JP 2002-175883) in view of Suzurisato et al. (JP 2002-324676) is withdrawn due to the amendment.
8. The rejection of claims 3 and 4 under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (JP 2002-175883) in view of Hoag et al. (US 6,824,893) is withdrawn due to the amendment.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

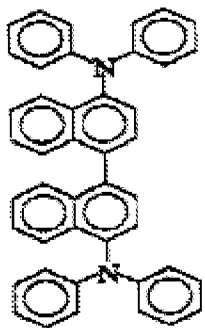
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 5-7, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishikawa et al. (JP 11-152253 A) (See machine generated translation included with this Office action for reference in English).

Ishikawa et al. discloses in Example 6 an EL device comprising the following compound in a layer between electrodes (see par. 81-83):

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【化28】

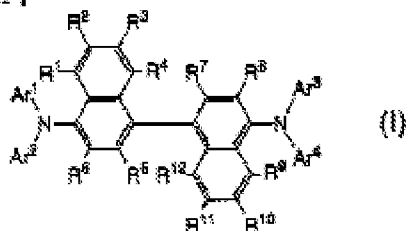


Regarding claims 5-7 and 14, the EL device may comprise the structure of an anode, hole transporting layer, luminous layer, electron transport layer and negative electrode (cathode) (see par. 39).

11. Claims 1-7, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (JP 11-302639 A) (See machine translation provided with this Office action for reference in English).

Sato et al. discloses organic electroluminescent elements comprising binaphthalene derivatives according to Formula (I) (see abstract) and more specifically see Table 1, especially compound (1) (Table shown in Japanese document on page (9)):

【化1】



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Preferred dopant material perylene is used with the binaphthalene compounds in a luminous layer (see par. 43). (The examiner notes that perylene is a preferred fluorescent dye of the instant specification in par. 48 of the instant specification with regard to instant claim 3). The dopant amount is 0.1 to 10% by weight (see par. 43) per instant claims 2, 4, and 15. Regarding claims 5-7 and 14, the EL devices comprise a hole transporting layer and electron transport layer (see par. 62 and drawings).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (JP 11-302639) in view of Suzurisato et al. (JP 2002-324676). Sato et al. is relied upon as set forth above.

Sato et al. is silent with respect to the *specific* features (i.e., specific materials of functional layers and /or thickness) of a device per claim 16, but does teach functional multi-layers for forming the light emitting device (see par. 62). Suzurisato et al. teaches, in analogous art, an EL device having an anode, hole injection layer, hole transportation layer, luminous layer, electron transportation layer, electron injection layer and cathode layer (see par. 159). With regard to claim 16, an indium tin oxide anode can be formed at a thickness of 200nm (see par. 169), the hole injection layer may be formed of copper phthalocyanine (see par. 54) and the

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buffer layers (the hole injection layer as named by Suzurisato et al.) may be in a thickness of 0.1 to 100 nm (see par. 56), the hole transportation layer is formed of a tertiary amine (see par. 65) and is formed in a thickness of 5nm-5 micrometers (see par. 84), the thickness of the luminous layer is 5 nm to 5 micrometers (see par. 119), the cathode may comprise a magnesium and silver alloy of 200 nm thickness (see par. 170). It would have been obvious to one of ordinary skill in the art at the time of the invention to have formed the Sato et al. device having functional layers as taught by Suzurisato et al. and to have expected the predictable result of light emission from the device, because one would expect the layers taught by Suzurisato et al. to provide the needed functions for an EL device to efficiently emit light.

Allowable Subject Matter

14. Allowable subject matter has been previously discussed in the prior office actions based upon previously considered species; please see prior Office actions. No claims are directed solely to those allowable species, so no claims are currently indicated as allowed.

Response to Arguments

15. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

16. Applicant's amendment which removed the previously considered species necessitated the new ground(s) of rejection presented in this Office action [**See MPEP 803.02**].

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Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dawn Garrett/
Primary Examiner, Art Unit 1794

December 4, 2009